



QL5-EX Quick Start-up Guide

1. UNPACK AND INSPECT

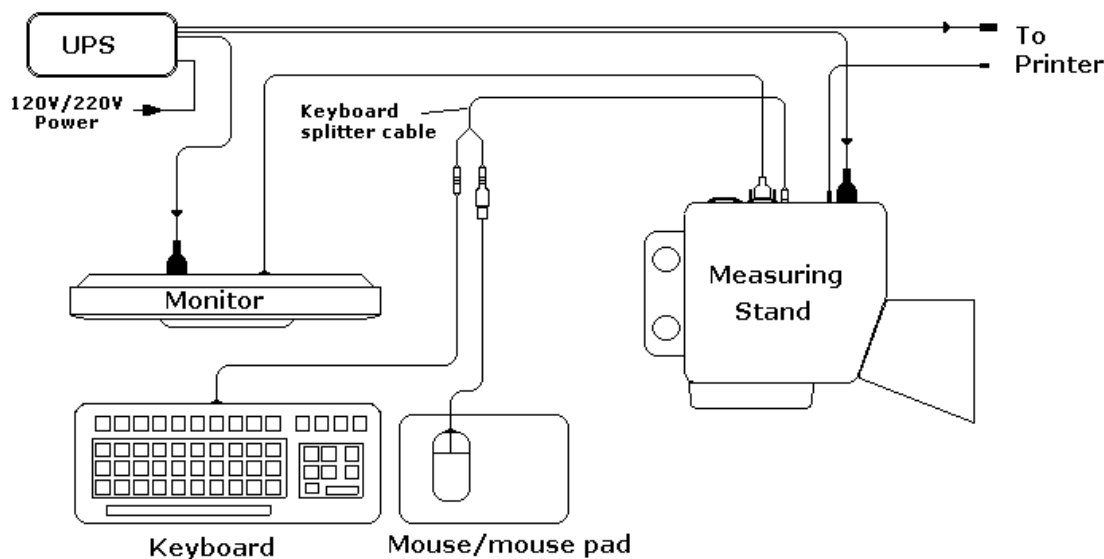
NOTE: When unpacking, check each component for damage. If you find evidence of damage, inform the ECI Technology Customer Service Representative about the matter.

Please check the enclosed packing slip and verify that everything is received. The following items are necessary to start the installation:

- UPS (Uninterrupted Power Supply)
- Measuring Stand with CVS Head and power cord
- 2 centrifuge tubes (Additive Cylinders) for Additive Solutions
- LCD Monitor with Data cable and power cord
- Keyboard, mouse and mouse pad
- Keyboard splitter cable
- Printer with USB cable and power cord (optional)
- Two 0.25 ml Syringes, or customize syringe sizes as ordered
- Electrode package: Reference, auxiliary and PT electrode.

2. SYSTEM SETUP

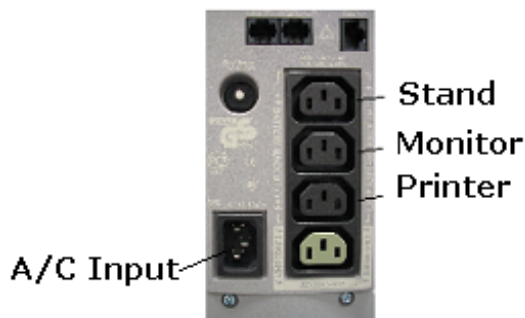
NOTE: Setup the system on the lab table. The detailed setup schematic drawing of the QL-5EX (single computer system), is shown below.



Power Connection

NOTE: Before installing power cables make certain all power switches are in the “OFF” position: Measuring Stand, Monitor and Printer.

- Using the male/female 3-prong power cord, connect the female end to the plug, A/C input power receptacle, mounted on the back of the UPS. Connect the male end of the cord to the facility A/C outlet.
- Using the same type of power cord, connect the female end to the plug mounted on the back of the Measuring Stand and the male end of the cord to the UPS.
- Using the same type of power cord, connect the female end to the plug mounted on the back of the Monitor and connect the male end of the cord to the back of UPS.
- Using the manufacture Printer instructors connect power supply to the printer. Connect the male end of the power supply cable to the back of UPS.

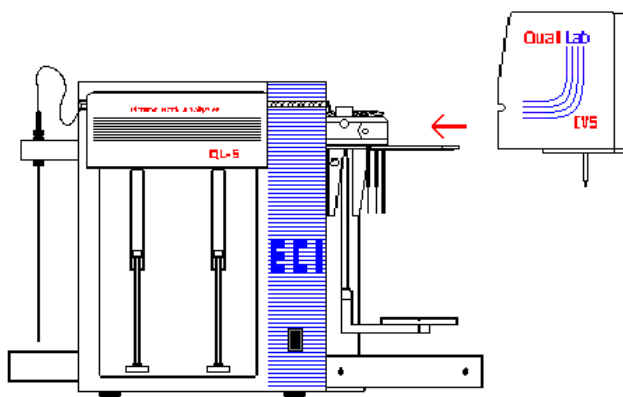


CVS Electrode Heads

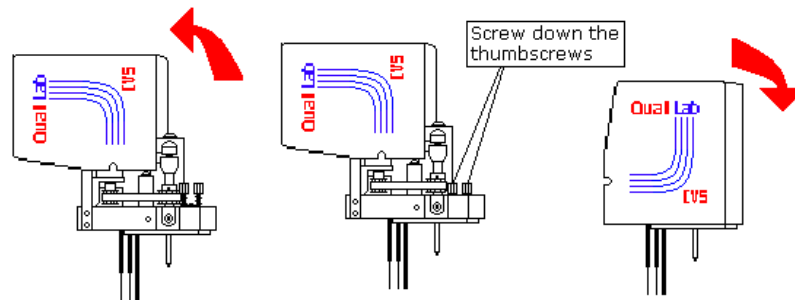
NOTE: The CVS Organic Measuring Head is attached to the stand when it's shipped.

DO NOT remove the head while the system is powered up, always power-down the Stand before removing or installing the Measuring Head.

To install the CVS organic or inorganic electrode head simply slide the head in directly on a horizontal plane toward the Stand by centering it on the tubing and thermistor holder. Make sure that the head is properly attached against the Stand to ensure proper electrical contact.



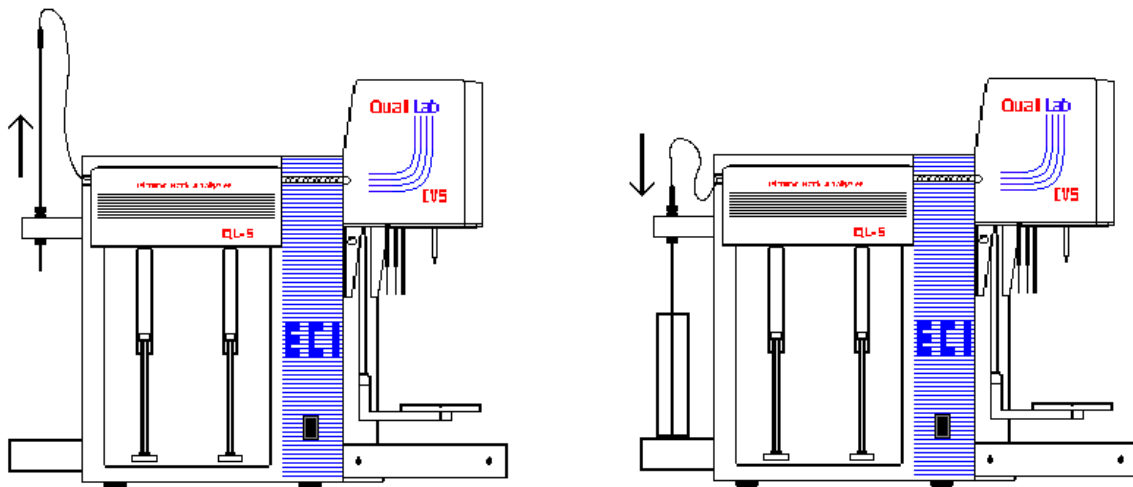
Open the Head cover and screw down the thumbscrews. Close the cover.



To remove the CVS electrode head, simply open the head cover and unscrew the thumbscrews. Close the head cover and pull the head directly out on a horizontal plane.

Additive Cylinders

NOTE: The (2) 50ml cylinders are packed in the accessories box.



Slide the Additive tubing upward and place the two 50ml cylinders into the holder, then slide-down the tubing as shown. Make sure the tubing is not touching the bottom of the cylinders.

Monitor

NOTE: The optional 17" LCD Monitor for QL-5EX is equipped with a data cable permanently attached to the case. Connect this cable to the connector labeled "MONITOR" on the back of Measuring Stand, be sure the connector is firmly attached using its mounting screws.

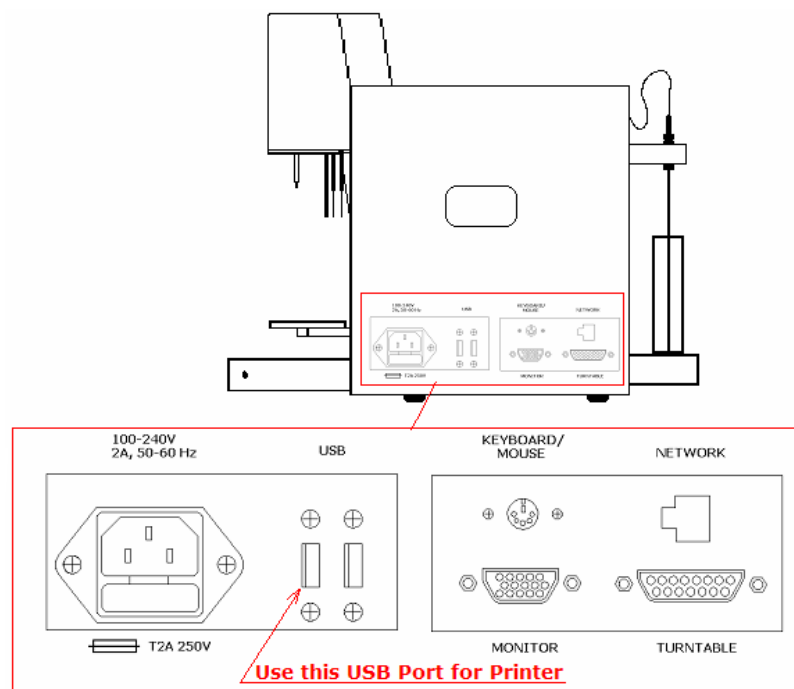
Keyboard and mouse

NOTE: The Measuring Stand has only one keyboard input. Use the keyboard splitter to connect both keyboard and mouse. The mouse connector has USB adapter attached. Refer to the first drawing (System layout) in section 2 ‘System Setup’.

- Using the keyboard splitter, connect the male connector to the back of the Measuring Stand labeled “KEYBOARD/MOUSE”.
- Take the keyboard and connect the cable to the splitter female connector marked as keyboard.
- Take the mouse with USB adapter; connect the adapter to the splitter female connector marked as mouse.

Printer

NOTE: The optional HP DeskJet printer is always shipped in its original box with cartridges and power supply. Use the manufacture instruction to setup the printer with USB data cable. Connect the flatter side of the USB cable to the back of the Measuring Stand labeled “USB” the closest one to the power connector.



3. STARTING THE QUALILAB SYSTEM

Power “ON” the system

Turn the UPS Power Switch “ON” and then power “ON” the Printer and Monitor, and as the item the QL-5EX Stand. Windows will start.

Authorization Levels

The QUALILAB program is equipped with multiples authorization levels, allowing for different capabilities at each level. Levels 1-3 are for customer use, higher levels are reserved for technical service. A user can create users of equal or lower authorization levels. The three basic authorization levels and their allowable activities are as follows:

Level 1 (OPERATOR): Default Password from ECI = 1

This level allows the operator to perform analysis without changing any analytical parameters; therefore there is no access to the setup screen. All parameter changes done by a Level 1 user are only temporary.

Level 2 (ENGINEER): Default Password from ECI = 2

In addition to the Level 1 permissions, this level allows the user to create new analytical procedural Memories and modify some parameters of analytical Memories supplied by ECI.

Level 3 (SUPERVISOR): Default Password from ECI = 3

In addition to the Level 1 & 2 permissions, this level has the same abilities as Level 2 but provides the Lab Supervisor additional security control over the Level 2 user names and passwords. Level 3 created procedures can not be modified by Level 2.

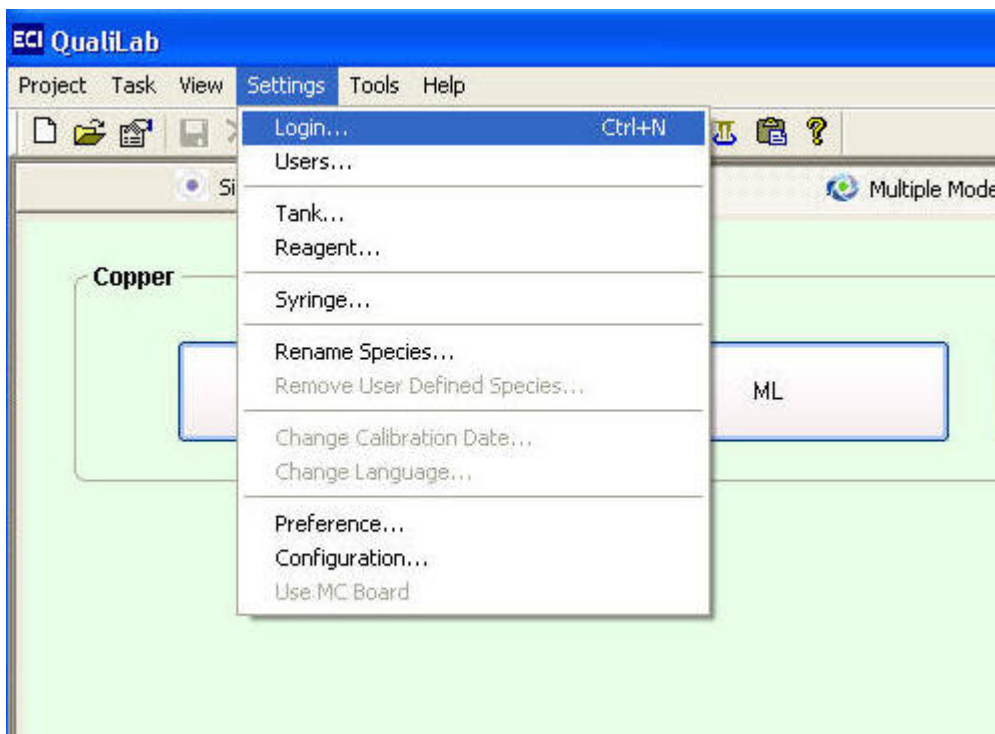
ECI recommends changing the default passwords to protect the analytical applications from unauthorized modification. It is recommended that each user be given his or her login and password.

Users have full access to memories programmed by an equal or lower access level. Users can perform analysis using memories programmed by a higher access level, but can not view or change parameters for such memories. Both authorization levels for the current memory and current user's name along with his/her authorization level are indicated on the bottom of the main screen.

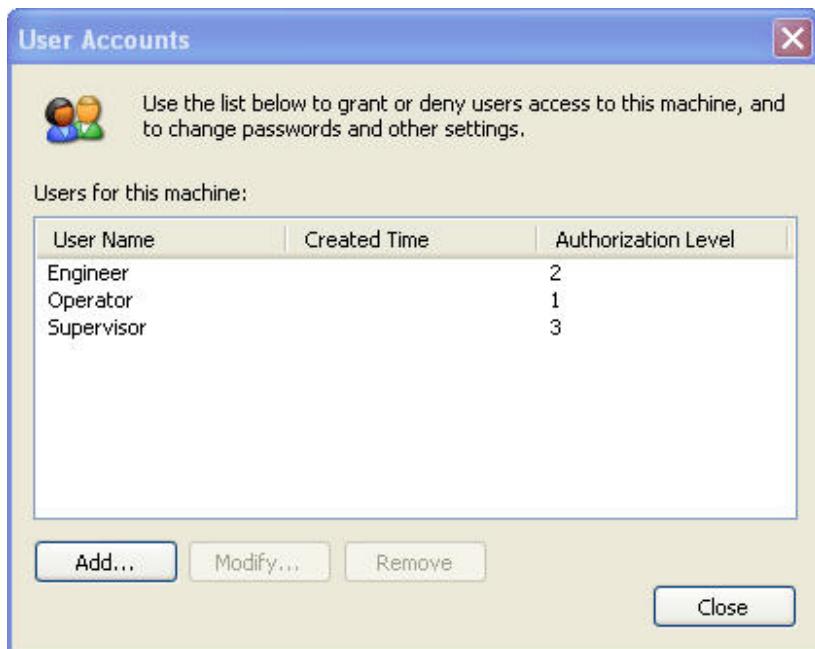
Change password

NOTE: When starting the QL-EX for the first time, the Engineer who will be fully responsible for the system, should login, change/create his own password and then change/create passwords for the personnel who will be authorized to use it.

From the Settings Menu select “Users...”

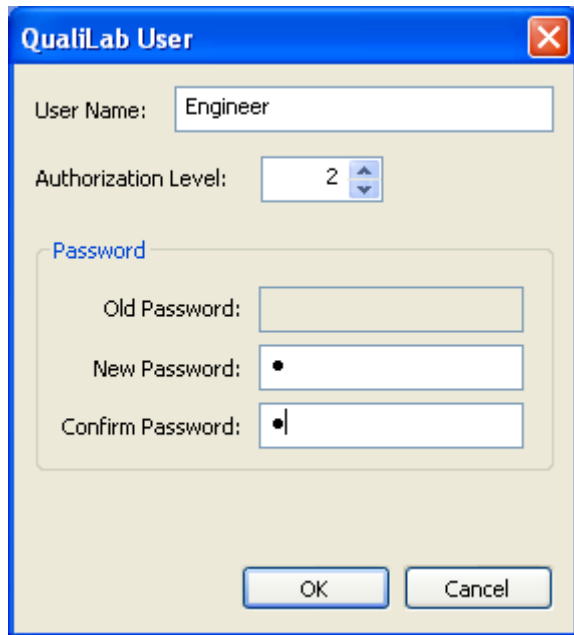


This screen is used to Add, Modify and Remove users.



Add/Remove/Modify Users

When adding a new user, you can only add users with the same or lower access level than the user that is logged in. Similarly, you can only remove a user with the same or lower access level than the user that is logged in. Modifying a user follows the same logic; it allows changing the password of the user and the access level. Changing the password requires the old password.

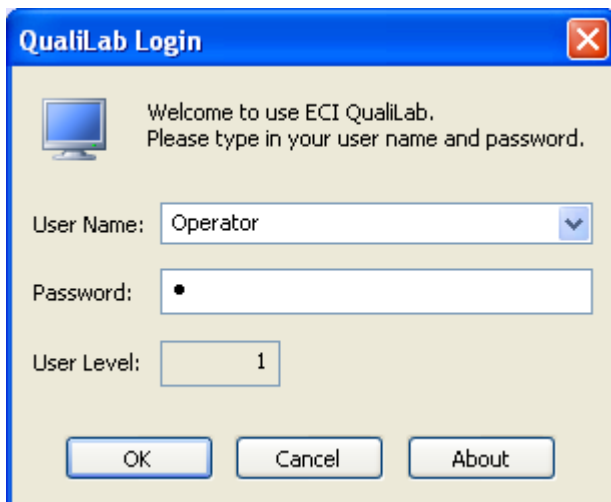


The QualiLab User dialog box is used for adding, removing, or modifying users. It features a blue title bar with the text "QualiLab User" and a red close button. The main area is light beige and contains the following fields:

- User Name:** A text box containing the text "Engineer".
- Authorization Level:** A dropdown menu showing the value "2".
- Password:** A section with three text boxes:
 - Old Password:** An empty text box.
 - New Password:** A text box with a single black dot.
 - Confirm Password:** A text box with a single black dot.

At the bottom of the dialog are two buttons: "OK" and "Cancel".

To login under a different User, go to Settings-> Login. Select the user from the User Name drop down menu and enter the password in Password field. Then click OK. You are now logged in.



The QualiLab Login dialog box is used for logging in. It features a blue title bar with the text "QualiLab Login" and a red close button. The main area is light beige and contains the following fields:

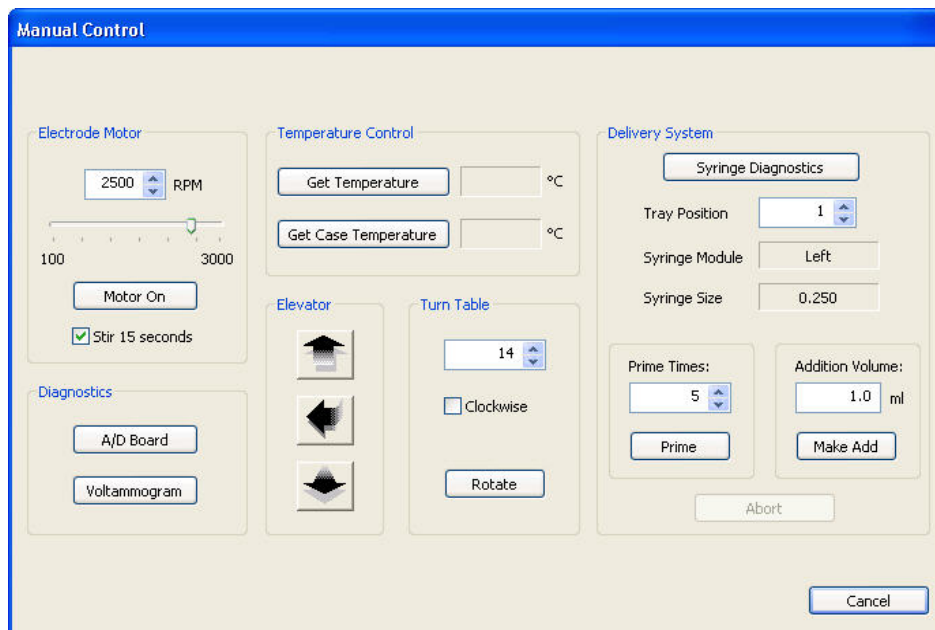
- Welcome message:** A message box with a computer icon and the text "Welcome to use ECI QualiLab. Please type in your user name and password."
- User Name:** A dropdown menu showing the value "Operator".
- Password:** A text box with a single black dot.
- User Level:** A text box containing the value "1".

At the bottom of the dialog are three buttons: "OK", "Cancel", and "About".

The main screen will appear with new user name and authorization level.

System Function Test

While logged into the QUALILAB software, from the main menu select “Tools – Manual Control” to open the Manual Control Screen. This Screen can also be accessed from the Toolbar or by using the “Manual Control” button from the Analysis Screen. Check all functions to make certain the system is working properly.



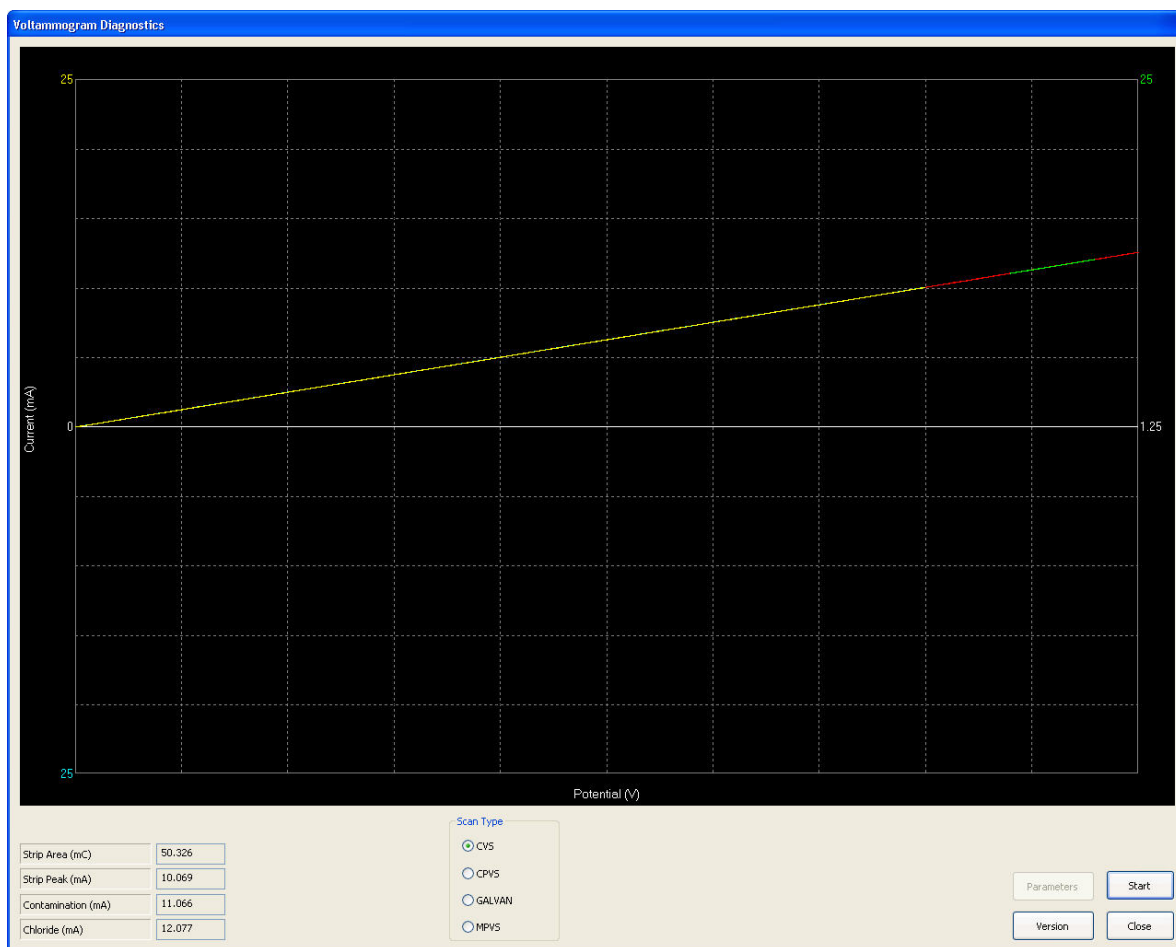
The software recognizes the configuration of the hardware and makes the required features available to the user. In general, some features affect the measuring functions and some features affect delivery functions.

Electrode motor – Turn the Electrode Motor On and Off, select different RPM to verify the different speed rotation of the motor.

Delivery System – Select Left and Right syringe by enabling the check box and then select ‘Replace Syringes’. Make sure the syringe modules are responding without creating any errors messages.

Temperature Control - Select ‘Get temperature’ and then ‘Get Case Temperature’. Both temperatures results should be approximately 25°C.

Diagnostics – To perform the A/D board test, click on ‘ Voltammogram’ and verify the graph shown on next page.




Make sure the Scan Type selected is CVS and click start. Two cycles will be performed using an internal test cell.

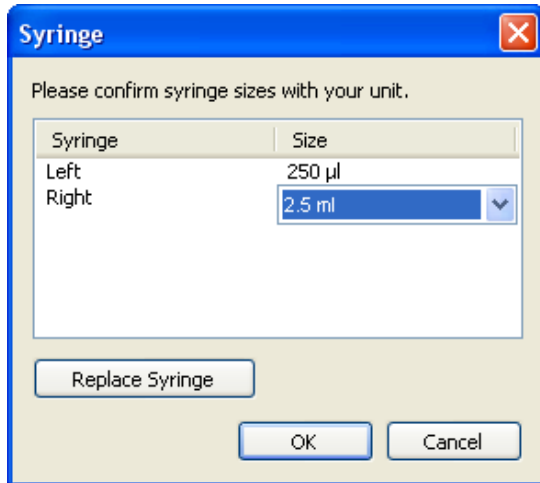
If the A/D Board is working correctly the results in the lower left corner should be within the following range:

Strip Area	50.00 mC +/- 1 mC
Strip Peak	10.00 mA +/- 0.1 mA
Contamination	11.00 mA +/- 0.1 mA
Chloride	12.00 mA +/- 0.1 mA

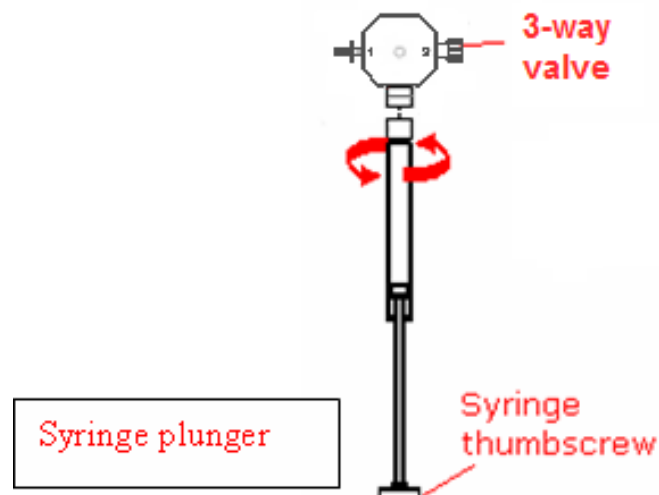
Syringe installation

From the main menu select “Syringe”  from the button bar, or from the settings menu. A new window will open allowing the selection of the left and right syringe size. There is also a button for replacing syringes.

Select both (Left & Right) syringes in “Delivery System” section and then click “Replace Syringes”.



Select the Syringe that needs to be installed and then click “Replace Syringe”. This will move the arm with the thumbscrew down. Once the arm is in the lower position, hold the syringe pointing up and secure the plunger end onto the drive arm with the attached thumbscrew. Then gently slide the lower tip of the syringe into the port on the bottom of the valve. Gently twist counterclockwise to secure the lower lock.



Now the system is ready for use!